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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/558,274

11/23/2005

Pekka Vallittu

TUR-174

1650

32954

7590

03/04/2008

JAMES C. LYDON

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SUITE 100

ALEXANDRIA, VA 22314

EXAMINER

YOON, TAE H

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/558,274	Applicant(s) VALLITTU ET AL.	
	Examiner Tae H. Yoon	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/23/05, 1/27/06</u> . | 6) <input type="checkbox"/> Other: ____. |

A substitution of "natrium" in line 4 of claim 2 with "sodium" is suggested.

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 10-12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The recited "Use (of)" in each line 1 is non-statutory subject matter, and "A method of using" is suggested.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3, 5 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recited "modified" in "modified cellulose fibers" in claim 3 is indefinite absent particular modifications since the specification is silent as to any modified group(s).

The recited "poly-OH-proline" in claim 5 is improper naming of a polymer.

The recited "obtainable" in claim 7 is indefinite and "obtained" is suggested.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 4 and 6-9 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kishi et al (US 6,596,373).

Kishi et al teach a prepreg comprising a fiber reinforced epoxy resin in abstract. Kishi et al further teach use of partially embedded fillers such as powdered silica at col. 9, lines 11-32 and col. 13, lines 18-35 meeting the instant surface part. Said powdered silica would meet the instant bioactive filler absent further limitation.

Various fibers such as silicon carbide or alumina are taught at col. 10, lines 21-46, and said silicon carbide and alumina fibers would be inherently X-ray opaque. A lamination of a plurality of layers encompassing two layers taught at col. 10, lines 51-53 would meet the instant claim 8 since the instant supporting sheet could be another prepreg.

The intended use of claims 8 and 9 has no probative value.

Thus, the instant invention lacks novelty

Claims 1 and 3-9 are rejected under 35 U.S.C. 103(a) as obvious over Kishi et al (US 6,596,373) in view of Evans (US 6,616,971).

The instant invention further recites fillers, different thermoplastic polymers, oligomers and monomers over Kishi et al who further teach employing a thermoplastic oligomers (col. 8, lines 7-11) and reactive diluents such as acrylate ester (col. 10, lines 6-10). Evans teaches the instant thermoplastic polymers (and oligomers since a further chemical reactions are required to form the final polymer) at col. 6, lines 4-24 for preregs.

It would have been obvious to one skilled in the art at the time of invention to utilize a thermoplastic polymers (or oligomers) of Evans in Kishi et al since Kishi et al teach employing thermoplastic oligomers and reactive diluents, or use of any base material (other than a prepreg) for rolling up the prepreg for a storage and shipping would be a routine practice in the art..

Claims 1-9 are rejected under 35 U.S.C. 103(a) as obvious over Kishi et al (US 6,596,373) in view of Driggett et al (US 5,902,755).

The instant invention further recites glass fillers and different thermoplastic polymers and oligomers over Kishi et al who teach silica particles. Driggett et al teach the instant glass fillers and polymers and oligomers at col. 8, lines 4-24 and preregs (col. 6, lines 34-47).

It would have been obvious to one skilled in the art at the time of invention to utilize the art well known glass filler or thermoplastic polymers and oligomers of Driggett

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et al in Kishi et al since Kishi et al teach employing silica particles and since use of glass particulate filler in epoxy-containing prepregs is well known as taught by Driggett et al and since Kishi et al teach employing thermoplastic polymers and oligomers.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent 5,846,640 to Vallittu teaches a prepreg except the instantl partially embedded bioactive filler.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H. Yoon whose telephone number is (571) 272-1128. The examiner can normally be reached on Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tae H Yoon
Primary Examiner
Art Unit 1796

THY/February 23, 2008

/Tae H Yoon/